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## WHAT IS THE REAL PURPOSE BEHIND THE UFOA?

## The Physical Fact

Nountling evidence gathered over the years by reputable UFO observers and researchers in establishing the physical fact of UFOs in our skies, has resulted in ever-growing numbers of people from all walks of 11 fe and countries of the world accepting alien spacecraft visiting our planet as a fait accompli. Even world governments, who have always acknowledged a small percentage of totally inexplicable UFOs, are now coming out more openiy in admitting that UFCs exist and notably, the United States Govermment has, through the USAF, recently announced that a grant of $\$ 313,000$ w111 be made to Univarsity of Colorado scientists to investigate flying saucers. It is obvious fiom this fact alone that a government, alraady heavily involved in the garigantuan costs of an ambitious Space Program, plus a war in Vietnam, is not going to lay out even this relatively small amount of money unless it believos that there really is something worthwhile to investigate.

The present wider acceptance of the reality of UFOs mast be aftributed In a laxge part to the early pioneer work of private inveatigators, UFO groups and such organizations as NICAP who have continually pregged for governmental acknowledgement of the UFO case and the release of more information to the nublic. We owe a great debt of gratitude and should pay a warm tributg to these pioneers who, in the early days especially, courageously subjec sed themselves to public ridicule, sometimes persecution and often velled threats concerning their jobs, etc., and who were frequently labelled "orackpots". This type of trestment has always been meted out to men with Ideas and beljef's in advance of their time, who dared to unget the status quo of the powerg-thatmbe. Fven Christianity itself, perhaps the most noble concert of earth's history, met with vile persecution in 1 ts early days. But where the govermments of the world falled to meet the challange of penetrating the UFO mystery, private UFO researchers and groups have in a great measure, succesded. Let us then, for the purpose of this articie, accopt the physical fact that UFOs exist. Where then do we go from here?

Aos ?ysio of TVpical UFO Behaviour
Careful study of typical UFO behaviour made from personal experienee and/or rejutable reorts from all over the world, reveals the following main fiactors:
a) Use of a tecbnology far superior to our own;
b) Intelligent control of the spacecraft;
c) Ablilty to appear, disappear (dematerialize) and re-appsax at w111;
d) Abill ty to "traverse" vast distances;
e) No evidence of hostillty or attempts to interfere with Earth ${ }^{1} \mathrm{~g}$ natural progress.

An intelligent, breakdown of these factors leads us to some obvious conclusions. The operatore of these alier spacecraft aust be highly intell. igent beings from other planets or posstbly, huge, artificial floating world: In outer space. There are theories that these sace beings may also have
basas on the moon or cyen on Eexth in our polax regions or undersea, but sa yet there i.s row real proos of this. Judging from thain supariox techmology, they must nome from oldor and more advancsi civiligations than ours and in view of the nonwerpessive nature of the tr visits, they inuet have leached a higher stage of spiritual avoixtion than wo have Thels
 covering of the wast diatances iswolved - thus defying all Rareh-known concopts of physies
 us. It is bolieved by a numbor of scientilit reeoarchors wo have made a daop study of the metaphysical anpects of these zemaricabie achioveanats that they are ascomplished by an instantaneous "fitp" from one dinansion to anothor, thus bybpassing the space-tisno factor". So far thon, we have established the physical reality of the UPOs and from Logical conclugz.ons clatureted that they nust be manned by beings who have resched a far superior toclunological and sysrituai stage of evolution than we have. What then is the purpose of their viastes to our planet?

Tha Rogl Furgoss Buhind the Uros
While at this athge of our investigations, we can only theorize on a number of the
 dedicatad $1 / O$ researchere who fixmly belleve that they heve acme of the anawers. It ist a strango but vucieniable fact that any openmainded, truth-soeking incitviduals $\rightarrow$ and this includes downote-aarth selentiate - who make a desp and sineare stady of the UFO ceses eventualivy reach a stage when they are brought face-to face with the metaphyaical and spinvitual aspects of the aftuation. To quote but a faut known esseng, this was the personei earperiense of our own founder, the late Whibart B. Snithy of Moed Layse of the B.S.R.A. i of the late George Adanskl; of the vell-known British Jfyo author, Leonard G. Gxpapp whose inditial approach, like that of WRS, was furely scientific; and of Major Hans Feterown of Danaark, who oxiginaily stt out to "debunk" flying asugezs as a lot of nomsensel All thegs
 to the nyatery was placed in their hends. To somes, it eame through logieaj and inepirational doduction claznad as their onas to othars, more sonsitively attursed to what wess going ons. there alao cam the resliagtion that knowledga and anligercenant werv boing imparted to them from sonm outstido soyres.

Frequently wor swoh peopile werv writing out woparics or arbieles on their findinge of UFO ressanch, thoy would fixd thenssalves inoluding staranga itcus and concoptas nome of
 and yot inwardly thoy knew thesy made good sonse. Aftar a casefvi analysis of the situation. the writer could only cous to one coaclusion - eowe istelliggont boing, velth knovi.edge far suporios to his oung was courmaicating with his by neans of mental telepathy. As the researcher becans wose 'en rapport' with his cormurnieators, a wicnderful new concept for a bettor way of life enurged, with the mals emphasis is two spocific areas-ascitntific, or more proposiy, use of natraral lams (of which we have as yot baroly toucted the rringe) for the benaitit of humanity at large; and spjipitual davalogmomt -and always it is armossizad that the two are ineorkricahly jindsed. So where do 今hose massagy come from?

It is belfovred by wany and corrtainly those wo have hed the experience, that thoy coma from the apace vistitozs to ous planot who rogard us as their mose baciovard brothore but novaritheless pert of the cosmic family wom, within the livits of thoir poueres, they want to holp gnd inspixe towards a spirituallywricher lifs on Fsxth and the wider horisons of Cosaic Brotherhood throughout the Univerge. While thair Cosmic Lews only permit thetw to halp those open-ainded, truthwsoeking individuals who seek such helpy they hope that
through euch earthlungs，the howledge will bo passed on to others．Aecording te mastagen recedved，it sumas that our Spece Brothors depiore，with a great deal of pityy Ein＂th＂s propent approach to scientific and spiritual mattore a they say in offect that wi have ＂got the eart before the hores＂and ase doing things tha hacd way． $\mathbb{I}_{g}$ they sugfestag we firet concentrate on spiritrual brotherhood and the humaities of ilfe，such as＇raciag cart of oux hurgry，sick and poor，the syiritual atmosphere of the whole planet wou＇s be raiged to a highor lewal in which docrway would be opened to new disomokons end matu pal laws in the xealn of metephysios whith would simplify our ontire concept of Selence．ft prosent， Earth＇s space salemtists are trying to pertorse farculsan tasks the hard，physinal wayo An understanding and use of the groat natural．laws of motaphysics sould sluplty the whole procedure．We have a clasale exampie of the use of motaphysies in the sowgailad＂maracles＂ of jesus Christ．These wers not ragical tricks or even rodracles a they were the work of a Grast Mastex who，eftumed to higher epireitusal vibrations，was using other－divonsiomai raturai lawe．And rensmber，tie said：＂Greater things shall ys also do．＂

## The Yital Puspasg

Tifs then appaars to be the gain and nost inportant purpose of our syage visitores ianterest in ins a a doubleopronged drive to make us（1）aware by thatr preenco in out skies of the existence of other beirgga in the thalwerge，and（2）to holp thesw wh seek it，up the ladder of spisitial and seisntifie progresa．There may be other；subsidiarg monaons for thoir rigiting us．There ie one achool of thought that bslieves wa wre mae the more backoverd whildren of thair own planat whe wore biought to Garth to work art thatr owts evow luticn and thase ailow the raome advanced being on this planet to progrect still furthers axd that，for this reason，thoy ow us a Karaice deit and moral obligatiun to asuist uit in vur own progross．Othars think that orx apace viaitora are have to kews a wabchinl ayw on tho dingarous nuelear toys we are playing with which might being sbout o cataclysule halocsust，not oniy deatroying every living thing on this planet，but uswiowsij upsettines the belanoe of the entire solar systsuag scane oven think that shey migh？nse thwir ouperior technology to＂neutralize＂the sffacts of a nualease war．Then there are thoso who thirk that ors space viaitorw are alrealy perforwing a usaflal tazk by ciearing pas shlos of radioactive＂gerbagm＂？this theory has been arrived at by obeervance of irys ant＂grewn Fivebails＂in the skies over areas of nuclear activity．Stilli anothe gehool at whought advences the theory that a wast fleat of spass－ships 8 liy at the readr zoound Planet biarth preperved to reserse large numbers of earthlings in the arent of a thresten od nucleave war：

A11．these apaculations，honever，are at the best，oniy theories with litite or no proof of substantiationo Iat us then deal with the facts that wa lovom，ioeiog that ail
 swars that they axe being＂inspired＂by som outside superiax intelisgence to Iimk
 Whil bart Bo Sulth who，with a strictly scientific appreach，ulways ashad for smi uaruaity
 coally or inspixationally，in the end also recos．re positive proof that they ere in contsct with ths Space Brothers．

This then seans to be the vithal purgose bohisd the UFOs os to reach and inspixe those more opsen ainded and spirituallymadvanced beings on Earth to a new weal of life， sncompaselng spiritual and scientific progresa in hansong vith the Cosmio laws of the ऊniverse。

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International Serios No, 8 - CANADA.

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Although etill closoly affiliated with its parent body, International Intelligence of Unjderititiod Flying Objects (formerly Interplanetary Intellisgancs of Unidentified Flying Objects lestured in an earlier issue of Topside), the newiymforsed Canadian Aerial Phenomena Investigations Conmittee (CAPIC), with headquartars in Scarborough, Ontexio, is a twuly Canadian organization rum by a Board of Governors, Chairman of which is Mr. Aㄱan K。Vazina.

To become a member of CAPIC automatically ontails merabarship in the IIOUFO. The See is $\$ 3,00$ per year and for this menbers receive an ofiticial IIOUFO momberghip cerd and 6 iasces of its official publication "UFO Analysis fleport". CAPIC menhers are doubly foxturate, for thry, at no extra cost, receive on official Canadian nembership curd and 4 issues of the Canadien quarteriy joumsal "The CAPIC Roports". The IIOUFO has now become the worldig largest UFO organization, with a membership of over 8,500 . It has offices is all 50 States of the U.S.A.g and also in 42 foreign countries. The IIOUFO Nes formed for a scientific investigation of UPOs and is backed by a panel of promingnt scientists. Its motto is "Reaearch, Investigations and Analysis", and in Sopteaizer, 196h, by authorivetion from the Pentagon, Washington, it was pernitted to inspect and question the Air Poree Project Elue Book on UFOs at the Wright-Batterson A파 Fore Boes.

GAPTC an Canads will have behind it not only all the strongth of the vast IIOUFO orgendratiots, but also affiliation with the Unidentified Aeriai Phenomena Rosearch Organization (UAPRO) and the Belgium Unidentified Flying Objacts Comperative (BUFOC). This meana that CAPIC members will receive IFO news from all over the world.

Topelde recaives, on an exchange basia, copies of the Canadian journal "The CAPIC Reporta ${ }^{12}$ of which Mr. A.K. Veaina is Editor. In his latest editorial, Mr. Voaina vaites with a great doal of punch and verve o he is obvioushy a nomonsense, hardwhiteling man prepared to put up a strong fight againgt all who would block the pathway to selantitic UFO research. Shocked at the lack of cowoperation and curt treatmant he received from Toronto's laading newspapers, on which he makes some mary pungent and pithy commants, he forthwith enlisted the aid of the Matropolitan Toronto Polioe Deparkment who have agreed to co-operate by advising him of any UFO sighting reports in the Divercnto arsa in orvier that he mey carry out on-the-spot invesi 1gatyons.

GAPIC's viltimate afm is to affilitate all Canadian UFO orgenisations under ifis wing to fosm a unified body that will ba able to command the respect of the Canadian people, the newopapers and the government.

Tha CAPIC emblen consists of a red maple leaf with the aromic symbol in gxay in the centre. Across the atomic symbol is printed CAPIC in heavy black letters. Any of our roaders who way be interested in joining the CAPIC group, with ithe worid wide aftiliztions and membervhtp in the IXOUFO, should send the memborship see of $\$ 3.00$ in the form of a rooney order made payable to the IIOUFO, addreseing it to G.A. Pn I. Gu Po. Box 98, Postal Station "An, Searborough, Ontario, Cenadae Parhupo wo shovid remernow the oid adago - "In Un\$ky, there in Dtrmphn" and hern is a


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We are indebted to Misa Rey d'Aquila, Leader of the upo contact Group in the Hague, for the following interesting news itens.

Unsoan UFO: Rey relatea the strange experionce of her iriend in Eindhoven with whon she is in teleppathic coarrunication and who conflirzed Rey's sighting of a "swara" of UFOs as described in the last issue of Topaide. This friend and her musbend weres driving on a Drtch express highway at a spoed of $100 \mathrm{mop} \mathrm{p}_{0} \mathrm{~h}$ 。 in ratuy, misty weather conditions. Suddeniy, for no apparent reason, the car ${ }^{1}$ s spoed dioppsed back to 60 moporio and none of the drivar's efforts could incroase this apood. ianediately, Rey's friend sonsed telopethically the presence of a UFO overhead, but hor husbend disonissed the idea. proserring a more down-to-sarth explanation although ha could "find none. Then without warning, the car leapt back to its original apeed of 100 mopoh. But 20 mfnutes later, it was the husband tho oxclaimed norvously to his wifez "Here it oomos againg And thera' a cold draught blowing down my back, making my neek-hairs stan: on end. It's giving ms the creeps?" This time, the car dropped to well below 60 anop.l., and finaliy they both becase convinced oi thoir close proximity to a flying saucer. it ons timo, the wife thought she could use a light object flying ahead of thom, but it o to the miasty weather. she admitted that it might have been a birdo At the end of the 1:1p, the nuelenc carsfuily checked the carc; it wes in porfeot working ordor and there ees nothling wring with the ignition. But if it was not a UFO, why the unaccountabia lose of spaed arsd why the inexplicable cold draught?

EVOLUON: At the entrance of Einohoven, City of the worldaray ous Phtitps induatiry, there otands the EPCLUON (Fhilips' Permanent Industrial Exhibition isntre) anodelled in the shape of a typical space dize, and tha Dutch press is already cilling to "The Fysing Sauoer of Hoiland". EVOLJCN is bathed in a djm, hagy-blus iight ver: much like the rogi fiying samesr after which it was deaigned and it stands on V-shaped ivet as though it havl Just landeri. Inaide this building, the illumination in the cupola, il ich is equappod with a lens, is of the same soft hazy-blue which spreads around unobti asively and $2 s$ hardly exporionced es light. Visitors push a button and a small plat $f$ n starts to rise whils a sof't "zooulng" soumd is heard. There is a photographic lay-out showing Manet Wearth projected in outer space, with a flying saucer (model EVOLJON) ho exing alongsido. EVOLUON was officiaily opaned in September of 1.966 and recoived a big we'to-iap in the Evcopean press. Ono newspaper described it as "The Challenging Philips' "lying Sancar"e Roy sonsiders it a vast stop forward that such large concorns as Philips wo now openly showing thele interest in UFOs and "meeting with outer space people of a F zher afrilization."

Indiridual Bugate Tone: In her research into the mataphysicel seisonce., Rey has bocome intarestod in what ehe describes as "Rasic Tone". She writes: Evary .vdividusi, anfinal, plant and rock has its om individval "besic tono". If you piay this wary tons, you raach the innormost part of the creabure. Magdaanan trachings give sa inc cation on how to find this basic tone for yourself. After a good night's rest, say ale, ud to yourself "Good Morning" and repeet this a fow times until you are suse that the basic tome runains the same every time. Then go to a musical instruenent (piano, violt, etc) and play this tone. Cheok if the tone is pleasing to your sar - $2 f$ it's the rigi one, it should be and if it is, this is your basic tons. All composers should write t.esr musice in thise vory tone which will guarantee suecess since it falls in line with h's tros incividuality. If an animal's basic tone is stiruck, it will surrender to you. Poinas: this is the hog to making a snake dance to a tume. A dog's whistio may be the aver ago of a dog's basic tons. Conversely, a basic tene played toc long and ort of hamsony with

The Listens 5 , can upset his mertal bslance and in rode cases, oven lill a porson?
Intaresting Publisationg: The fanous Brookings Instituto Rejurt prepared for NASA in 2959-60 is nos out of print. However, those interested in btaining a fuil-sized reproduction of this Report wich deals with life in outer space anil its froplicsticns for hrunan affaires and gives boid statmants of what goverrowents shoud do to edasate peopla towards meeting with higher civilizations, should apply to :-

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## A ROYAL UFOLOGTSTB

Devid Wyne-Margan, columist for the English magraine nf, andon Life", has this to Uay tir his colvan dated September 29, 2966: "Eapuers. One of the most fascinating sciontific conturoveraies, which has never been satisiactiorily resolved, is whethox flyirys saucsss are roally vehicles from outer spaco, the figmonts of peopis's imeginetions, or fusk explatrable by natural eauses.
"I can now reveal that the supportars of the eaditence of flying suucers have got socm very powerfill becking. One of the gresteat experts on the subjeet in this country (Ingland), \& than has no doubt whatever that they eciat, is no lase a. person than Princo Prilif.
"Orar the years, he has collacted a groat deal of written evidence on the subject nand has got together aimosto all the books or papers that bave over been publishod.
"His interest datoa back to the time when Coamandor Michaei Pariker was its private secretary and the two of them would diacuss for hours the pros and oons oi the evidence that existed.
"One man who has discussed it with Princo Philip personally, told mot "The Irince is a down-to asprih, practical man, but he is absolutely corvinoed of the reality of zlying saucors."

It is interesting to 2oavn that our wo foumile art repelvirg madn royai Interest!

## "PTECE FOR A JICSAW"

Lecnard G. Cremp's New Book Frovides a Fascinating Misaing Ploce to the UFO Fuzzelet
The Bditor was delighted to receive frcm the author en suitographed advanse copy of Leonard G. Crampis new book which rass finally publisted under the titie of "piece for a Jigsar". Here is the book that UFOlogistes and Selentista the world over have long malted forl To quote from the somenhat modest ocements inafide the book's 'fackeot' :"This book is not dressed up to be startilingly sensational. It doesn't have to be. The scientific facts contained in it are otartiancly senationsi in thenselves, Neither is "Plece for a Jlgawn fuas another flying saucor theory, for it offars the roader ovidence of a highly corroborative technical nature set out in a simple, straight-forvard yet enthralling manner which leaven very littie doubt as to the fact that apacecraft are Landing on Earth." The author modestly Buggests that he is कnly offering a very amall piece of the gigsam puz2le, but readers may form their oven opinions on what appoars to the writer as an under-statement.
"Plece for a Jigsaw" is in fact, a high quality book profusely fllustratad with explanatory diagratas and sketohes and a series of interesting photographs including an the frontispiece, an excellent colour reproduction of the oll peititing by loonard cranp of a flying saucer hovaring over a moon crater (as desribed in the last iesue of Topaide). It is a book which anyone could be proud to have on hia bookshelf. As for the contents of the book which represent over 12 yoars' meticulous 信0 researeh, analysis and seiantifis experiments, readers, perticularly in the tectonical and scientifle ifolds, are in for an intriguing surjeise and hours of fascinating reading as they follow stop by stop Kr. Gramp's luald and loglas seientifla deductions on the UFO nystery. The book covers, whth a mealth of 11lustration, the whols ganut of acromdyibiad-ranging froe pridiont-day Barth airoraft to the soph1otioated flying saucer and inoludes the folloning intervating chapterst-


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Chapter 8 The G-pield Theory
it 9 G-pield Lift Prfects
" 10 Asconpenying Phencuiva
" 11 Analysis of the Technical Corroborative Ivvidened (1)
" 12 " (2)
" 23 (3)
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" 25 " (5)

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| Chapter | 16 | Analyaie of a Theory to Fit the Facts (6) n (7) |  |
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| n | 18 | 1 l (8) |  |
| " | 19 | " (9) |  |
| n | 20 | (10) |  |
| PART 4 - FAMTLIAR SCENGRY AT THE END OF THE JOULNET |  |  |  |
| Chapter 21 The Biapield Theory <br> 12 |  |  |  |
|  |  |  |  |  |  |

George Adanski followers will be particularly interested in the last chapter in which Sro Gramp explains how by a completely indeperdent, stepoby-stop scientific analysiss he arrived at exactly the same design of space diec as the Adamski scout ships and in this chapter he reveals some new and interesting facets of the case, thereby vindicating some of GA's claims.

In the last paragraph of the book, Leonard Cramp explains that despite his original intention to include a final chapter on the metapphysics. aspects of the UFOs, due to his scientific treatise taking up more book space than originally anticipated, he came to the reluetant decision not to include this, belioving in the final analysis, that this intriguing aspacts of the flying saucers belonged more properly between the pages of another book part of which is already written and he is now working further on. We may look forward to this with eager anticipation, as Ur. Cramp promises such exciting revelations as "oom a personal. experience, of thoughtmprovoking nature, of the Mother Ships, more about the energy the discs use and the Iittle slignposts which indicate where those who want to, may look for it thom selvess his ow findings on where the big carriers may be coming froung how they come ${ }_{g}$ nay, why theg bother to come at all wes".

The Editor took along "PLece $\operatorname{Cor}$ a Jigsaw" to the last meeting of the Ottana New Sciences Club where it met whth an onthuadastic reception by nambers, a number of whon intond to order personal copies, apart from the fact that this fascinating book will be added to the Club Library. The Editor cannot speak too highly of thia book and urges all flying saucer enthusiasts, UFO groups and particularly scientists interested in the UFO phenomena, to obtain a copy from a good bookstore. It is also suggested that UPOlogists should reyuest their Public Libraries to obtain copiea in order that this valuable knowledge may reach as many as possible. Publication details are as followe :-

| 2xtles | "place for a Jigsaw" |
| :---: | :---: |
| Author: | Loonard G. Grarap |
| Publishers: | Semerton Publishing Company Limited Nemport Road, Somerton, |
| Price: | Cowes, Isle of inght, England |
|  | Ganada and $\mathrm{U}_{5} \mathrm{~S}_{\circ} \mathrm{A}_{0}$ - about \$4.25 |

Don't miss out on this UFO Book of the Centurys Due to Leonard Creapis worldiwride fame in UFO seientific circles, there will be a heavy demand for it. Order your copy nowl


For most of our history we have thourht that Man on Earth was the centre of Creation. We thourht the stars were fixed to a sort or sphere. Or they were little holes in a sphere through which fleamed. from beyond, some orisinal fire or brilliance.

The idea that Nan on Darth is the centre of things, or that, at the very least. he is Jod's most favoured creature, if not the master of all her surveys. is slow to die. Perhaps, in its direct form, it is dead. ro most people. the notion that the Larth zoes round the Sun, and that the Sun in turn is just a star among miliions in a jalaxy, and that there are many ralaxies is not a new one. It has been around for some time now. It is not heresy any lonçer.

But. possibly from a subconscious feeling that it is the only way to preserve our self-respect. we still like to think of ourselves as the best. Do most of us really consider the possibility of contact with other technolosies? Do we really think that they mizht know somethiny fundamental that we don't know? Do we consider seriously any possible prior claims to real estate in "space"?

After centuries of resistance, Christian theolorians are besinniny to wrestle with the reli yious implications of the possibility that we may not be the focal point of Creation, but that we may be inferioa in physique, in intellisence and in spiritual development to more highly evolved beings elsewhere.

One can say "after centuries of resistance" because the idea that there are other worlds like our own and that some of them may be inhabited, is a very ancient one indeed. Thales andMiletus. who lived at the end of the seventh century before Christ. is said to have sujuested that the stars are other worlds. His pupil, inaximander. developed the idea that there are an infinite number of worlds in a constant process through a sort of cycle. some dyiny. seme beins born and the rest being at various stages in their "lives". At that time too, Pythasoras held the view that the Darth was spherical. And Xenophanes of Colophon, seeking to put Man in his place, ridiculed the tods worshipped by the Greeks. If cows could make imares, he said, they would worship cow-shaped jods. Ie also said that the Hoon was inhabited.

Close to the time of Christ, the Roman poet Lucretias said that as there are countless individuals in every species of animal, land nothing in the universe is "unique and solitary in its birth and rrowth". so there must be innumerable worlds and their inhabitants. And somewhat nearer our own time, the Dutch mathematician, astronomer and physicist,

Christiaan iluyzens, said that the Sun was just another star, and went on to ask ".. Why may not every one of these stars or suns have as sreat a retinue as our sun of planets, with their moons, to wait upon them?* lie felt that we must grant that their planets would have the same qualities as the planets in our solar system. "They must have their plants and animals," he wrote, "IJay and their rational creatures too, and those as rreat admirers and as dillcent observers of the heavens as ourselves..."

A hundred years before Huy fens a Dominican monk in Italy, Giordano Bruno, concluded that there must be an infinite number of worlds inhabited by an infinite number of morally imperfect beinjs. Ie reached this conclusion considering the infinite qualities of God. He was burned at the stake for heresy in 1600 . . D.

In this century, in 1918. Harlow Shapley published his findin;s that our own salaxy is a disk-like system of stars, and that our own sun is thousands of light-years from its centre. He wrote in 1958, "we have made a lony forward step in cosmic adjustment - a step that is unauestionably irreversible. We must jet used to the fact that we are peripheral, that we move alon; with our star, the Jun, in the outer part of a zalaxy that is one amon millions of star-rich salaxies." He has also said that "as far as we can tell, the same physical laws prevall everywhere. The same rules apply at the centre of the Hilky Way, in the remote jalaxies, and amony the stars of the solar nei shbourhood. In view of a common cosmic physics and chemistry, should we not also expect to find animals and plants everywhere? It seems completely reasonable; and soon we shall say that it seems inevitable."

To find animals and plants everywhere, animals and plants not too different from those we are used to, means that we should expect to find planets everywhere. Planets not too different from those we know in our solar system, in fact, not too different from our ow Earth. No telescope has been devised yet that is strong enough to see planets even of the nearest stars. Is there any evidence, then, that there are other planets outside our solar system?

Ninety per cent of all stars visible in our telescopes, when classifled in a certain way accordinz to spectral type and luminosity. fall into a narrow band known as the "main sequence". At one end of the main sequence are the youny, larye, hot, bri sht stars and at the other are the old, small, cool. dull stars. In astronomer named Otto Struve, While studyin? the speeds of rotation of stars alon; the main sequence, noticed an abrupt step at one point in the sequence from fast spinnin? stars to slow spinning stars. He postulated that these slow stars had siven birth to planets at this stare in their"ife", and, as the raised arms of a whirling fizure skater slows her spin, so these planets had. absorbed much of the star's anzular momentum. However, other scientists have other theories for the loss of spin, pointin; out that the same effect
could have been achieved by shooting out jreat masses of ras. Some astronomers have proposed that virtually all sinjle aisirs have planets regardless of their speed of rotation. It all depends on what theory of the orizin of stars and the Universe they are supportins. They are quite ready to admit that they don't really know. Neanwhile the only method of proceedin; is to try to fit various theories to the facts as they are collected, to see what facts are left over. If too much is left unaccounted for one has to think up a new hypothesis to test.

Jut cvidence of the existence of planets has come from another line of astronomical research. Photosraphic measurement of the positions of a. number of stars over a number of years has disclosed that several of them seem to wobble. The wobbles are consistent with the existence of comparatively small bodies in orbit around them.

The main sequence of stars is not considered a hi yhway now, down which a star procresses. A atar does not change its position on the main sequence, which is determined by its mass. To quote Valter Sulilivan's explanation in his book "Ve Are ilot Alone":
> "A star moves onto the main sequence onee its internal heat and pressure...become sufficient to start the hydrozen burnin: Its stay there ends when the supply of hydrozen in the core has been exhausted...the star swells into a "3iant" or "superriant", becomin; prorressively hotter and briyhter - and. presumably, destroying any life in its vicinity。"

The hydrozen reaction stage is by far the lonzest staye in the IIfe of a star - a fiact which would explain why ninety per cent of the known stars lie on the main sequence.

The Earth is estimated to be about 4.6 iniliion years old. About a third of that was needed to evolve the chemicals that finally or canized Into what we call life. The remaineer was occupied by the evolution of Iife from its most primitive form to mankind now preparins to lauoh himself into space.

At the hot end of the main sequence, stars burn their hydrogen too fast to stay on the main sequence long enough for their planets to evol.ve life. At the cool end only a narrow zone around the stars has a temperature ranze within which ilfe as we know it could evolve. The sreatest likclihood of finding planets inhabited by intellisent iffe appears to be in that part of the main sequence occupied by the moderately sraall stars. By a happy coincidence the Sun lies squarely in the middle of this zroup and the Darth lies in the middle of the Sun's habitable zone. Hars and Venus also lie within the Sun's habitable zone; Venus near its inner IImit, and Nars noar its outer limit. (The limits were set at the temperature extremes thouzht to je necessary for the chemical reactions that would have to occur in any conceivable life process.)

Other factors, such as the radius and mass needed in order to hold an atmosphere, and the probable distribution of likely candidates in the salaxy (more in the arms that at the centre, they think) have been reckoned in statistical calculations. The most optimistic answers for the number of probably inhabitated planets in the ralaxy are in the billions. These fisures are reduced by various pessimistic ar,uments, however, to a matter of millions.

Even so, with the nearest star a number of lizht-years way from us, and the probaility of only one in the nearest several hundred thousand stars havin' an inhabited planet, our nearest neishbours are likely to be an auful lons distance away from us.

With our technolozy and our as yet unshaken belief in the IImitin; speed of 11 sht it will be a lon; time before we reach tied. With their technoloy..... who knows?

Intellizence has a definite survival value on this planet, and it is probably so on other planets. Sy the same token, suspicion of stranjers, a certain wariness when confronted with the unknown, is also built into us. If he doesn't fit our conventions and customs then he is a danzer to our society. Clobber him. Is it 30 on other planets? How much does soclety have to develop before that is bred out of us? From where we atand it looks as if droppinc that little trick would leave us very vulnerable when dealin; with other societies. And yet, on the individual level, we know very well that we have had to jive it up, that it is no way to win friends and influence people. Jice people, that is.

## "THEY SAW - NOW THEY BELIEVE IN FLYING SAUCERS!"

"The Leader-Post" of Regina, Saskatchewan, Canada, in its issue of Jan. 11, 1967, carried the above title as its banner headline. The story follows: "Vancouver (CP) Five members of a Canadian Pacific Airlines DC-8 crew never believed before, but they believe in flying saucers now. The crew reported Tuesday they saw one on a recent flight from Lina, Peru to Mexdico City and couldn't explain it away. "We tried to diseredit the thing from beginning to end, but it couldn't be anything we could think of." said Capt. Robert Millbank. He said he saw two beams of light during the Dec. 29 plight. Second Officer John D. Dahl, navigator, Mike Mole, purser, Joseph Lugs and pilot trainee W. Poepperi, gathered to watch the object.
"It was getting bigger all the time, and at one point shot out a trail of sparks like a rocket." Capt. Millbank said. "Then it seemed to be getting closer and we could see a string of lights between two white lights. It then levelled off at our left wing-tip and, in the full moon, we could see a shape between the two lights which appeared thicker in the middle."

He said the object remained a couple of minutes, then disappeared behind the big passenger plane. He said he flled a report in Mexcico City after the flight. The passengers did not see the object. The crew did not wake them. Said Mr. Dahl: "I never believed in flying saucers before. But. I've got to believe in them now!"

